PROPOSAL EVALUATION

Proposition 1E Integrated Regional Water Management (IRWM) Grant Program

Stormwater Flood Management Grant, Round 2, 2013

Applicant	Contra Costa Water District	**Amount Requested**	$10,000,000
Proposal Title	Contra Costa Water District Round 2 Flood Management Proposal	**Total Proposal Cost**	$20,000,000

PROJECT SUMMARY

The project is located in eastern Contra Costa County. The project will replace a portion of the unlined Contra Costa Canal (Canal) with a pipeline. The project is one phase of a five-phased project intended to encase the entire 21,000 feet Canal. The Contra Costa Canal conveys raw water the Contra Costa Water Districts treatment plant. Benefits of the project are to reduce flood risks from levees surrounding the canal, and to improve water quality of source delta water conveyed through the canal to the water treatment plant.

PROPOSAL SCORE

Criteria	Score/ Max. Possible	Criteria	Score/ Max. Possible
Work Plan	**9/15**	Technical Justification	**4/10**
Budget	**3/5**		
Schedule	**3/5**	Benefits and Cost Analysis	**15/30**
Monitoring, Assessment, and Performance Measures	**3/5**	Program Preferences	**9/10**
		Total Score (max. possible = 80)	**46**

EVALUATION SUMMARY

WORK PLAN

The work plan criterion is less than fully addressed and rationales are incomplete or insufficient. A detailed and specific work plan for the Proposed Project is not included in the proposal. This proposal does not clearly define, or describe, or show, a map that clearly shows the extent of the proposed project, as opposed to the full 5-phase project. Although the applicant includes a list of technical references included with the application, the work plan narrative does not cite references that help the reviewer find specific passages supporting the project citing, feasibility, or technical methods. It's not clear what phases of the project are included in this proposal. The work plan does not include Data Management and Monitoring Deliverables consistent with the *2012 Guidelines*. It is not clear how the project, part of a multi-phased project, is "capable of providing the claimed benefits in the absence of other project…" (Pg. 3-17), and as a result, "… will yield full benefits."

BUDGET

The budget criterion is less than fully addressed and is not supported by thorough documentation. The budget includes detailed cost information but not all costs appear reasonable. Sufficient documentation to support the costs are not supplied for a majority of the items. Lump sum amounts given in tables 4-6,4-8,4-9,4-11, 4-13, and 4-15 should be supported with additional back-up information. Budget Table 4-9 shows budget information for completing phases 2-4 of the pipeline, while the work plan indicates that only 5,000 feet of pipeline will be installed, which is considerably less than what would be required to cover the length of phases 2-4, as shown in Fig 3-3. In Table 4-9, it is not clear what the column "W/CO Authority," represents, though it appears to be an approximate 6% mark-up over the construction costs. Construction (Task 4) subtasks shown in Table 4-16 are not consistent with those shown in the work plan.

SCHEDULE

The schedule demonstrates a readiness to begin implementation by October 2015, but it is not entirely clear whether the schedule is reasonable. The schedule includes a detailed and specific Gantt chart that demonstrates a readiness to begin construction by July 2015. However, the subtasks in the schedule are not entirely consistent with those described in the work plan and budget. For instance, the budget shows $1.699 million for the installation of a channel bypass to supply water when the pipeline is being installed, but this important task is not shown on the schedule. Budget item 4.2.6, Site Restoration and Improvement, is not shown on the schedule and in the work plan. The lack of narrative explaining how the schedule was derived also makes it hard to ascertain the reasonableness of the schedule. For example, the applicant could have indicated the extent to which experience gained in installing the first 1,900 feet of pipeline in Phase 1 was used to derive the current schedule.

MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES

The monitoring, assessment, and performance measures criterion is less than fully addressed and documentation or rationales are incomplete or insufficient. Monitoring targets include reduced flood risk, increased levee stability, improvement in operations, and improved water quality by reducing salt water intrusion. However, only the salinity reduction target is expressed quantitatively to allow assessment of whether the project will deliver the stated benefits. In addition, the targets assume completion of future pipeline phases not included in the proposed project scope. Thus, meeting the targets during the life of the project is uncertain.

TECHNICAL JUSTIFICATION

The technical justification cannot be determined due to a lack of documentation demonstrating the technical adequacy of the project. The technical justification is presented with the assumption that the project will be the full five-phase project benefits and not the stand-alone project described in the work plan. In addition, it is not clear if the benefits claimed for the proposed project also include the Dutch Slough benefits. On page 7-9, the Applicant states that East Cypress Corridor is an area currently at risk from flooding from the unlined portion of the Contra Costa Canal," but from the information submitted, it would appear that the reduction in flood risk to the East Cypress Corridor would be achieved through the completion of segment 5, which is not a funded segment in this proposal. In addition, Table 7-5 (Miles of Roads Inundated Without Project) does not include a map showing the physical location of the roads in relation to the proposed project area or the areas of inundation. It's unclear if the benefit tables included the benefits of the proposed project or complete five-phase project.

BENEFITS AND COSTS EVALUATION

Collectively the proposal is likely to provide a medium level of benefits in relationship to cost, but the quality of the analysis or clear and complete documentation is lacking. Total project cost is shown as $16.5 million in Net Present Value (NPV). Construction costs are consistent with Attachment 4, and operation costs of $50,000 per year are shown. Expected life is 100 years. No intermediate replacement costs are shown.

Flood Damage Reduction (FDR) benefits are based on an assessment of four possible flood events with return intervals of 25, 50, 100, and 500 years. The hydrologic analysis supporting probability of levee failure, inundation areas, and depths appear to be based on rain gauge data. The main categories of damage avoided are residential and commercial structures, roads, and the Dutch Slough restoration project. FDR benefits include lost gas production during 2-week inundation period. Production would be delayed, not lost. The dollar value damage to Dutch Slough is assumed to be 50% of its value in any of the flood events – no justification is provided for this assumption.

The water supply benefits are dominated by reduced releases in CVP/SWP reservoirs to maintain water quality for CCWD. The mechanism seems plausible, but the assumptions and data used to quantify the benefit are critical. Water supply benefits to SWP/CVP are also estimated for relaxed OMR restrictions. In general, explanation of data and assumptions is incomplete and missing basis of selection or derivation.

The analysis uses two different unit values to monetize water supply benefits, $754/AF and $743/AF: both are too high. The value should reflect the marginal value of the water at the location and amount it would become available to other SWP/CVP users. This could be done either by providing recent data on transfer prices for water in the San Joaquin Valley or by using a weighted mix of unit values for the different users of Delta export water.

PROGRAM PREFERENCES

The proposal demonstrates that the project will meet nine program preferences. The following program preferences were adequately demonstrated to be met by the project: 1) Include regional projects or programs; 2) Effectively integrate water management programs and projects within hydrologic region; 3) Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program; 4) Effectively integrate water management with land use planning; 5) Drought preparedness; 6) Use and reuse water more efficiently; 7) Expand environmental stewardship; 8) Practice integrated flood management; and 9) Protect surface water and groundwater quality. Other preferences were either not claimed, or if claimed, did not meet the preference with a high degree of certainty.